Convert the angle measures in degree to radians.
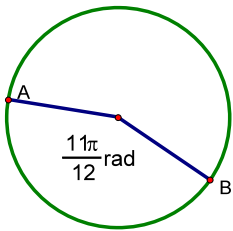
1) 290^0 2) 165^0 3) 55^0 4) 305^0 5) 240^0

Convert the angle measures in radians to degrees.

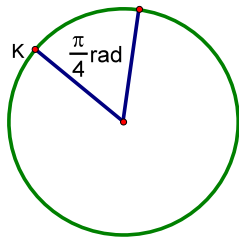6) $\frac{3\pi}{8} rad$ 7) $\frac{5\pi}{4} rad$ 8) $\frac{11\pi}{3} rad$ 9) $\frac{7\pi}{6} rad$ 10) $\frac{13\pi}{10} rad$

Find the length of minor arc AB using a proportion.   Find the area of the sector using a proportion.
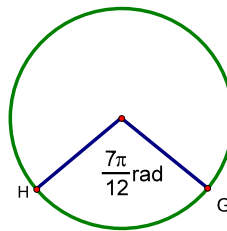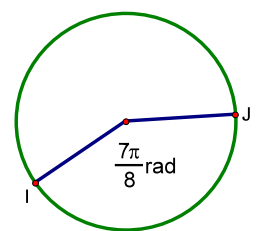
11) C = 38 m 12) D = 72 cm 13) A = 86 ft^2 14) r = 27 m
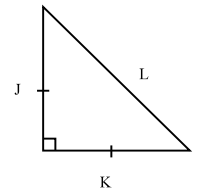

Given the length of one side of the 45-45-90 triangle at the right find the other two sides to the nearest tenth..
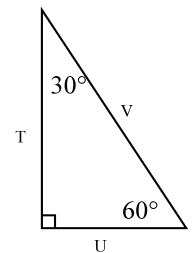
15) J = 15 16) K = $28\sqrt{2}$

17) L = $30\sqrt{2}$ 18) L = 50

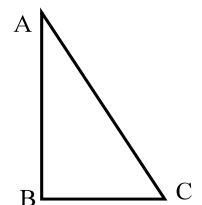Given the length of one side of the 30-60-90 triangle at the right find the other sides to the nearest tenth.

19) U = 18 20) U = $21\sqrt{3}$ 21) V = 62

22) T = $46\sqrt{3}$ 23) T = 60 24) V = $72\sqrt{3}$

In the figure at the right the ratio $\dfrac{Opposite \angle C}{Adjacent \angle C} = \dfrac{45}{28}$.
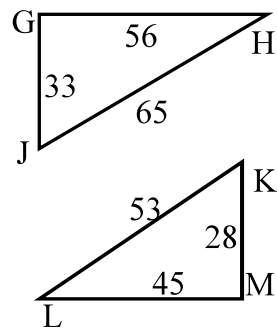
25) BC = 84, find AB and AC. 26) AC = 318, find BC and AB.

Give the indicated trigonometric ratio as a fraction and to four decimal places.
27) Sin ∠G   28) Tan ∠J   29) Cos ∠K   30) Tan ∠K

31) Sin ∠L   32) Cos ∠K   33) Sin ∠H   34) Cos ∠J

Give the indicated trigonometric ratio as a fraction and to four decimal places.
35) Sin 45°   36) Tan 30°   37) Cos 60°

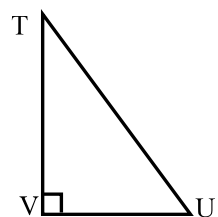38) Tan 45°   39) Cos 45°   40) Sin 60°

41) Cos 30°   42) Tan 60°   43) Sin 30°

Find the trigonometric ratios using the information given. Use the figure at the right.
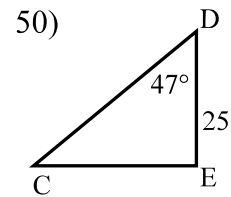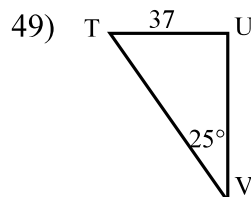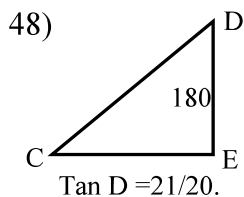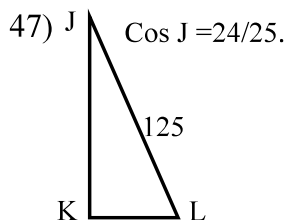44) Sin ∠T = 7/25   Cos ∠U =   Tan ∠V =

45) Tan ∠T = 4/8   Sin ∠T =   Tan ∠U =

46) Tan ∠U = 72/65   Tan ∠T =   Sin ∠U =

Use the information given to find the lengths of the missing sides in the triangles below.

47) Cos J =24/25.

48)

49)

50)

Tan D =21/20.

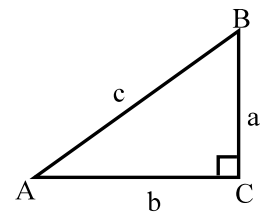Use the given information to find the measures of angles A and B.
51) a = 15, c = 33   52) a = 26, b = 36   53) a = 5, b = 19

Solve ΔABC using the information given in each problem.
54) B = 62°, b = 48   55) A = 34°, c = 25   56) B = 75°, c = 52